

*ABSTRACT AMENDMENTS*

Replace the Abstract with:

A servo controller includes a mechanical characteristic compensation unit for attenuating components having predetermined frequencies and corresponding to characteristics of a machine, which are included in a position instruction signal corrected by ~~an~~ a finite impulse response (FIR) filter, ~~so as to compute and computing~~ feed-forward signals respectively associated with ~~the~~ position, speed, and torque of the machine, and a feedback compensation unit for driving the machine according to the feed-forward signals. Therefore, the servo controller can reduce vibrations that originate from the characteristics of the machine ~~2~~. In addition, because the FIR filter can easily make the response path with respect to a ~~symmetric~~ symmetrical instructed path, ~~become symmetric~~ become symmetrical, ~~and,~~ when the machine is made to travel between two positions along the same path, ~~can make~~ the two response paths of the round trip match each other, so machined surfaces having no irregularities can be provided when performing reciprocating machining.